Zero-Emission Farm to Table: Reducing Air Pollution Emissions and Health Risks from the Movement of Produce Along Two Adjacent Trade Corridors in California

This project will coordinate the demonstration of electric medium- and heavy-duty vehicles engaged in the movement of goods along two adjacent California trade corridors: San Francisco Bay Area and Central Valley. Specifically, this project will electrify (21) medium- and (9) heavy-duty trucks that deliver produce from and within the Central Valley, Sacramento Valley, and coastal urban hubs. The project will also deploy Level 2 and Direct Current Fast Chargers to support demonstration fleets in San Francisco and Sacramento. At one of the two participating produce distribution markets in San Francisco's Demonstration District, a 240-kilowatt solar photovoltaic array will also be installed.

The project will also provide education and technical assistance to medium- and heavy-duty fleet managers to make vehicle electrification simpler and more cost effective. The Project Team, including Ryder and CALSTART will lead a series of workshops in San Francisco, Sacramento, and Fresno in 2019 and 2020. San Francisco staff will also provide an "EV Concierge" service to fleets that are interested in going electric by connecting them to incentives and other funding opportunities, and by being a liaison to fleet managers and vehicle/charging station manufacturers, station installers, and local utilities.

Dates: 05/01/2019 – Spring 2021
Grantee: City and County of San Francisco, Department of the Environment

Partners: Ryder, Thor, Lightning Systems, CALSTART, San Francisco Wholesale Produce Market, Earl's Organic Produce, Veritable Vegetable, Produce Express, Raley's/Ozark Trucking, Inc., Black & Veatch, Tritium, Luminalt

Grant Amount:

CARB Contribution:	$4,562,862
Matching Funds:	$4,562,862
Project Total:	$9,125,724

Vehicles/Equipment Funded

This project will deploy transformative technologies that enable a detailed demonstration, assessment and evaluation of the real-world performance of electric medium- and heavy-duty vehicles. Specifically, this project will deploy:

Vehicles
- Lightning Systems Class 4 Trucks (100 kWh battery packs)
- Lightning Systems Class 6 Trucks (160 kWh battery packs)
- Thor Class 6 Trucks (minimum 120 kWh battery packs)
- Thor Class 8 Trucks (250-750 kWh battery packs)

Equipment
- eMotorWerks Level 2 Chargers (18 kW)
- Tritium DC Fast Chargers (50 – 350 kW)
- Solar Photovoltaic Array (246 kW)